RETURN ON ASSETS - TRUST LANDS DIVISION
MONTANA DEPARTMENT OF NATURAL RESOURCES

I. INTRODUCTION

This report expands the Return on Assets for Classified Forest Lands report required by the Montana Legislature to include all Trust Land bureaus. School Trust Lands account for about 5.1 million surface acres, or 5.5%, of approximately 94,109,800 surface acres of land in Montana.

This report is divided into two sections. The first section looks at all revenue sources on the same basis and timeframe using a non-legislatively prescribed method of analysis. The second will analyze the return to Classified Forest Lands using the method prescribed by 77-1-223 MCA through 77-1-225 MCA. In order to make the limitations and assumptions of this initial report clear, much of the report will be concerned with methodology. Future reports will omit much of this description.

II. METHODOLOGY AND ASSOCIATED ISSUES

Data Limitations. The Trust Lands Management Division is currently implementing a new data management system. The transition currently taking place has limited the availability of data; however, the new data system should substantially increase the accuracy of the data in the next report and make some of the current method of estimation unnecessary. Because of these data limitations, the data is most accurate at the total trust and land office levels. The trust by land office data estimates are reasonable, but will be improved upon as more complete data that requires fewer estimates becomes available.

Tables will not always balance, particularly when rounded numbers are being used. Estimating processes will also make some tables not balance.

Asset and Return Estimates. There are several methods used to determine the asset value of a resource. The best approach is the appraisal method. Two approaches are possible under the appraisal method. The Comparable Sales Method involves obtaining sales information on similar properties which is then used in valuing the asset. The other appraisal method is called Hedonic Pricing, and requires a large number of sales. With hedonic pricing, detailed land characteristics are identified for each of the sales. These characteristics are then statistically related to the sales price. The value of the asset can then be determined by inserting its characteristics in this relationship.

Another method used to estimate asset value is capitalization and its variants. Capitalization involves using the value of the resources produced by the land and an acceptable capitalization rate to estimate land value. One of the limitations of this

method is that it values only those characteristics which produce revenue, and ignores non-market and unexploited values associated with the land.

Another method is the replacement cost approach that values the land based upon the cost of obtaining an equivalent or comparable asset.

In this analysis, a combination of these methods is used. The details on which method is applied for each resource are given in the Appendix. More detail on the capitalization methodology and a discussion of several other issues is given below.

A. Capitalized Value

Capitalization is a method of using the earnings from an asset to estimate its value. The simplest formulation is

$$V_c \; ? \; \frac{R}{i}$$

where V_c is the capitalized value, R is the annual return from the investment, and i is a rate of interest or a rate of return. R is usually known from empirical information. The value of i is generally one of choice and is selected for different reasons:

1. The purpose is to compare the value of two different investments and the rate of return each investment is known a capitalized value can be computed for each investment. The investment with the largest V_c is the one with the highest value.

2. If the purpose is to estimate the value of an asset, then the choice of i becomes more difficult. The general financial principle in this case is to select an investment of similar risk and use the rate of return earned on that investment. (The implication here is that all assets of similar risk earn similar rates of return.) In a broader economic analysis it is appropriate to use a "social rate of return" which reflects the values that society in general might place on the asset. These rates of return may be higher or lower than the financial rate of return depending on the asset to be valued.

3. Sometimes an externally applied goal implies a specific rate of return. This may occur in organizations that require a specific return to meet objectives that are not directly related to the asset, e.g. charitable institutions.

4. In some instances, returns over extended periods are needed to adequately evaluate an asset. A more complex formula is used to evaluate these asset values, but the formula still relies on and is subject to most of the conditions identified in the simpler case.

   This method of valuing an asset considers its value only in relation to those activities that produce income and ignores other values which may be imputed to the asset but do not generate revenue. For this reason, care must be taken when using this type of analysis for asset management. Some non-revenue generating

activities or characteristics may have a high social value and will offset the direct monetary values being returned to the trust. There may be no direct legal requirements for including these values in the calculation but social concerns require that they be implicit in the analysis.

B. Market Value

Market value is the value of the asset traded on the open market. This value reflects all uses of the asset, some of which may not be considered in the capitalization approach. If markets are "complete," all possible values, both public and private, are considered; the market value represents the economic and social value of the asset.

C. Which value is appropriate for the trust?

The choice of which value is appropriate for calculating the return on assets depends on the use of estimates. From the foregoing analysis it is clear that the capitalized value will always be less than or equal to the market value. The full market value will only coincide with the capitalized value if the use of the asset is limited to uses that actively generate revenue. For Trust Lands, which have multiple uses, capitalization will rarely recognize the full market value of the land because some uses may be mutually exclusive or have low market values.

The purpose of this report is not to determine how to manage parcels of land for optimal financial return, but to provide an overview of the level of return on state lands. The primary purpose of the report is to provide an estimate of the economic rate of return on the Trust Lands. A market level asset estimate would be the most appropriate and will be used whenever possible. However, the full market rate may not be obtainable with the information available. In these cases, alternative valuations will be needed. These alternative valuations will vary depending on the resource being evaluated, however, a market value will be approximated whenever possible. The specific method used to estimate the capital value of each parcel will be discussed under the different revenue generating activities presented in the Appendix.

D. Earnings and Asset Appreciation

Asset appreciation refers to the growth in asset value over time. This increase in value may occur for several reasons such as an increase in the revenue it produces, an increase in non-market values, or an overall escalation in the real price of all assets of this type (this type of increase usually reflects a decreasing supply of the asset or a increase in its demand). Appreciation is considered part of the return on an asset and will be included in the total return on investment.

Assets can depreciate or lose value. In the case of a capitalized asset value, whether the asset appreciates or depreciates depends on whether the return and the interest rate are rising or falling. If the return rises or interest rates fall, the result will be

appreciation; conversely, if prices fall or interest rates increase, there will be depreciation. In some instances, such as with timber, both the interest rate and return may change in the same direction. Whether this results in appreciation or depreciation will depend on which is increasing or decreasing at a faster rate. If there is sufficient depreciation, the return on assets can be negative.

E. First Year Limitations

The Department of Natural Resources and Conservation (DNRC) is currently transitioning to a new computerized data management system which will give the agency much more control over the data being processed by the Department as well as the ability to easily retrieve and format the data for analysis and report writing. This system is currently under development. Because of this, much of the data had to be "hand collected" and had some inconsistencies that necessitate the estimation of much of information that will, in the future, be available as part of the database. In order to minimize the effect of these estimates, they will be identified within the report. Most of the estimates will disappear in next year's report.

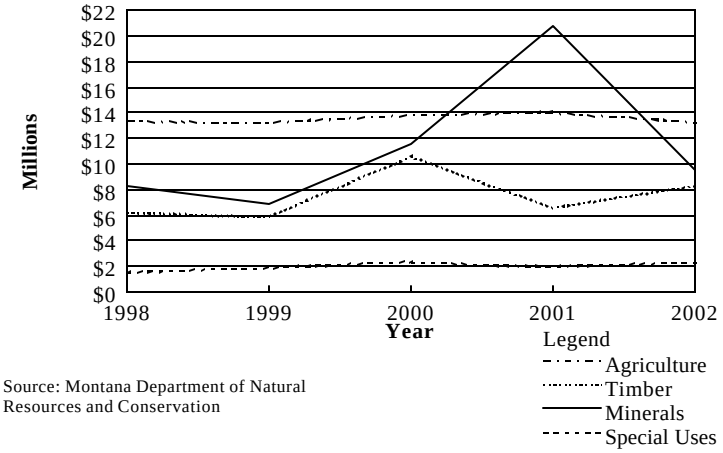
III. REVENUE, EXPENSE, AND ASSET APPRECIATION

While total return includes all values, it may not identify the best income flow. For example, appreciation in land values cannot be used to fund school expenditures, although it is considered part of the total return on an asset. Passive and non-market values affect Trust Land management activity levels, particularly regarding classified timberlands, but other land classifications as well.

A. Revenue

Revenue-generating activities on Trust Lands includes timber sales, mineral sales and leases, agricultural sales and leases, and "special use" sales and leases. Each of these is reported in the Department of Natural Resources Annual Report. Figure 1 shows the contributions from each source for the last five years. On average, agriculture brings in the largest amount of revenue, followed in order by minerals, timber and special uses. Revenue from mineral and timber sources is more volatile than revenue from grazing and special uses. This volatility is the result of sales that

Figure 1
Trust Gross Revenue by Source
1998 - 2002



Source: Montana Department of Natural Resources and Conservation

depend on and reflect more short-term changes in market conditions than the leases and licenses associated with special use and agricultural leases, which are based on longer-term market conditions.

Table 1 presents this same information in tabular form. These numbers are presented in the Department of Natural Resources and Conservation's Annual Report for each of the fiscal years except that land sales, trust interest and "other revenues" are not included. Land sales are shown separately in the table, but are excluded from the return on assets calculation because they represent an exchange of assets, money for land. These earnings are deposited directly into the Trust permanent fund. Interest income and other revenues are excluded because they do not represent current earnings from Trust natural resources.

Table 1
Trust Gross Revenue by Source and Fiscal Year

Source	1998	1999	2000	2001	2002
Ag. & Grazing	$13,431,437	$13,252,307	$13,826,053	$14,018,730	$13,279,949
Forest Mgmt.	6,259,332	5,905,196	10,591,657	6,596,578	8,282,481
Minerals Mgmt.	8,350,474	6,926,405	11,643,027	20,777,365	9,501,254
Special Uses	1,519,173	1,620,664	2,087,185	2,008,779	2,302,658
Subtotal	$29,560,416	$27,704,572	$38,147,922	$43,401,452	$33,366,342
Land Sales	18,844	254,917	261,884	218,456	15,954
Total	$29,579,260	$27,959,489	$38,409,806	$43,619,908	$33,382,296

Source: Montana DNRC

Table 1 represents gross earnings by trust; however, the return on assets should represent a net figure, i.e., earnings after expenses are deducted. Only expenses that reduce trust funds are included. Expenses paid from other sources will not diminish the trust funds available and are not counted against revenue. Table 2 shows the net trust fund revenues available for 1998 to 2002.

Table 2
Trust Net Revenue by Source*

Source	1998	1999	2000	2001	2002
Ag. and Grazing	$12,784,196	$12,567,944	$12,972,307	$13,127,720	$12,097,023
Forest Mgmt.	$3,304,737	$2,894,527	$7,486,558	$3,531,233	$4,996,012
Minerals Mgmt.	$7,743,095	$6,340,023	$10,899,180	$20,147,435	$8,745,150
Special Uses	$690,562	$798,840	$1,157,842	$982,423	$1,097,211
Total	$24,569,884	$22,601,334	$32,515,887	$37,788,811	$26,935,396

*Table includes reductions for production costs but does not include reductions for fund reallocations e.g. Permanent Fund.

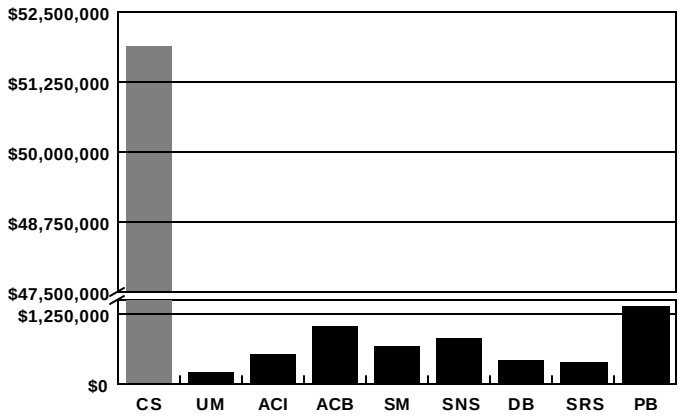
Source: Montana DNRC

Figure 2 shows the average contribution to revenue to each trust for the last five years in 2000 dollars. Not all of the revenue generated for the trusts is directly available to the various institutions; part is placed in a "Permanent Fund," and the earnings from the fund are distributed to each Trust institution.

The largest share of Trust money is for the common schools (90%); the second largest share goes to public buildings (4%), over 2% goes to Montana State University and the remaining 3% to 4% is shared by the seven remaining trusts.

Estimated gross revenues by Land Office and Trust are shown in Table 3.

Figure 2
Average Contribution by Trust
FY 1998 - 2002



Source: Montana DNRC

Table 3
Department of Natural Resources and Conservation
Gross Trust Revenues by Land Office and Trust
State FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	640	17	2,606	52	548	817	275	0	1	4,954
SWLO	491	21	3,057	15	732	125	29	467	2	4,939
CLO	26	123	3,753	68	318	71	101	135	13	4,608
NELO	42	27	8,598	11	53	69	59	34	38	8,932
SLO	0	22	4,386	0	0	0	0	10	1	4,419
ELO	0	1	5,487	0	7	1	3	1	14	5,514
Total	1,200	212	27,887	146	1,658	1,083	468	646	68	33,366

B. Expense

The Trust Lands Division is allowed to utilize a portion of the trust receipts to cover part of the costs of managing the Trust Lands. These funds are a reduction to funds available for Trust Fund distribution. Table 4 shows these costs prorated to land offices and trusts.

Table 4 Department of Natural Resources and Conservation Trust Management Expenses by Land Office and Trust State FY 2002(Thousands of Dollars)										
	Trust									
Land Office	ACB	ACI	CS	DB	PB	SM	SNS	SRS	UM	Total
NWLO	4	4	2,120	6	240	13	28	0	0	2,415
SWLO	3	8	1,227	5	136	11	14	7	1	1,412
CLO	2	50	737	4	188	9	12	18	1	1025
NELO	4	9	741	1	37	12	10	4	2	820
SLO	0	7	439	0	0	0	0	1	0	448
ELO	0	5	303	0	4	1	3	0	0	310
Total	13	83	5,567	16	605	46	66	30	4	6,430

C. Net Revenue

The amounts shown in Table 5 reflect the difference between the revenues collected and the expenses used to administer the program. These are not the amounts distributed to the schools, but an estimate of net earnings by trust. Earnings are redistributed based on different conditions associated with each grant.

Table 5 Montana Department of Natural Resources and Conservation Net Revenue by Land Office and Trust State FY 2002(Thousands of Dollars)										
	Trust									
Land Office	ACB	ACI	CS	DB	PB	SM	SNS	SRS	UM	Total
NWLO	636	13	486	46	308	804	247	0	0	2,540
SWLO	488	13	1,830	10	595	114	15	459	1	3,527
CLO	25	69	3,016	64	130	62	89	117	12	3,584
NELO	38	18	7,856	10	16	57	49	30	36	8,112
SLO	0	15	3,946	0	0	0	0	9	1	3,971
ELO	0	1	5,185	0	3	0	1	1	14	5,204
Total	1,187	129	22,319	131	1,053	1,037	402	615	65	26,935

D. Asset Value and Appreciation

Total asset value represents the sum of all asset values from each of the revenue earning activities associated with trust lands. The detail of these estimates is found in the appendix. The results of the aggregation are found in the following tables.

Table 6 Montana Department of Natural Resources and Conservation Surface Acres by Land Office and Trust State FY 2002 (Thousands of acres)										
	Trust									
Land Office	ACB	ACI	CS	DB	PB	SM	SNS	SRS	UM	Total
NWLO	12	3	224	9	41	11	10	1	0	312
SWLO	10	3	174	1	30	4	4	5	2	233
CLO	9	38	890	23	100	25	31	47	4	1,167
NELO	0	15	1,996	4	14	19	18	11	9	2,086
SLO	0	4	380	0	0	0	0	3	0	387
ELO	0	0	951	0	2	0	1	0	3	957
Total	31	63	4,615	36	187	59	63	68	18	5,142

Table 6 shows the total surface acreage by land office and trust. This information was used to prorate assets when they could not be directly allocated from revenue or other data.

Table 7 shows acreage by land office and revenue-generating activity. The largest share of trust lands, both surface and subsurface (mineral), are in the Northeastern Land Office.

Table 7 Montana Department of Natural Resources and Conservation Acres by Land Office and Revenue Source State FY 2002(Thousands of Acres)				
	Forest	Special Uses	Ag. & Grazing	Mineral
NWLO	296	3	20	354
SWLO	147	1	87	276
CLO	31	2	1,133	1,543
NELO	1	2	2,085	2,578
SLO	0	1	387	443
ELO	0	0	956	1,007

The asset value for the lands in each region by trust is shown in Table 8. This asset value is based on all sources and adjusted for possible use conflicts. The asset values for minerals have been added to the surface asset values, since there is little use conflict. Some mineral values occur where there is no surface ownership (4% - 6% on average). Mineral values are combined into the surface values in all tables.

In the case of minerals, the capitalized value is used since the mineral estate is largely subsurface and has few other marketable values. Special use lands are largely valued through appraisal processes that consider not only the specific use associated with the lease but other market valuations. Agricultural lands valuations are based on the "2000 Agricultural Lands Appraisal" done by the Montana Department on Revenue for the purpose of assessing property tax on agricultural properties. The method used

is to capitalize the agricultural values of the land. Finally, the timber appreciation is based on the method identified in 77-1-225 MCA, a capitalization scheme. Appreciation is distributed to each land office and trust based on a weighted average of the acreage in each "source."

Table 8
Montana Department of Natural Resources and Conservation
Asset Value by Land Office and Trust
State FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	10,581	6,503	180,906	7,558	30,117	21,423	6,824	1,187	506	265,605
SWLO	10,535	3,170	179,922	494	13,994	928	1,354	4,519	1,270	216,186
CLO	8,787	37,234	876,375	22,041	96,679	24,308	30,601	36,134	3,747	1,135,907
NELO	10,778	1,129	1,568,518	3,011	10,618	15,772	13,480	8,730	7,524	1,639,560
SLO	0	3,224	324,328	0	0	0	0	2,778	418	330,747
ELO	0	68	495,118	0	740	119	340	74	1,429	497,888
Total	40,682	51,328	3,625,166	33,104	152,148	62,550	52,600	53,422	14,894	4,085,893

Return on Assets - Total Earnings are from all sources timber, minerals, special uses and agriculture.

Total returns shown in Table 9 include the asset appreciation value where appropriate. In many cases the appreciation of the asset exceeds the direct earnings of the asset. Both values are summed in the table.

Table 9
Montana Department of Natural Resources and Conservation
Total Return by Land Office and Trust
State FY 2002(Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	621	74	3,975	126	746	650	268	30	5	6,495
SWLO	367	44	3,598	8	663	205	33	464	13	5,394
CLO	186	732	18,153	429	1,879	489	612	734	79	23,294
NELO	263	152	52,074	93	294	521	406	251	264	54,318
SLO	0	75	10,456	0	0	0	0	63	10	10,604
ELO	0	4	25,441	0	36	6	18	3	67	25,575
Total	1,438	1,082	113,696	656	3,618	1,870	1,337	1,546	438	125,681

Table 10 shows the rate of return on assets for all Trust Lands. The total return statewide is slightly over 3% which is the same as the return on agriculture and grazing (Table 11) when mineral values are included. Generally areas with the

highest mineral values have the highest rates of return. Unusually high rates of return are often indicative of a one-time occurrence or windfall. The overall distribution of assets tends to be more accurate than the detail distribution which is highly dependent on land ownership patterns.

Table 10
Montana Department of Natural Resources and Conservation
Rate of Return on Assets by Land Office and Trust
State FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	5.87%	1.13%	2.20%	1.67%	2.48%	3.03%	3.92%	2.56%	1.03%	2.45%
SWLO	3.48%	1.40%	2.00%	1.52%	4.74%	22.03%	2.42%	10.27%	1.01%	2.50%
CLO	2.12%	1.97%	2.07%	1.95%	1.94%	2.01%	2.00%	2.03%	2.10%	2.05%
NELO	2.44%	13.47%	3.32%	3.08%	2.77%	3.30%	3.01%	2.88%	3.51%	3.31%
SLO	0.00%	2.34%	3.22%	0.00%	0.00%	0.00%	0.00%	2.26%	2.41%	3.21%
ELO	0.00%	6.35%	5.14%	0.00%	4.85%	4.63%	5.35%	4.69%	4.67%	5.14%
Total	3.53%	2.11%	3.14%	1.98%	2.38%	2.99%	2.54%	2.89%	2.94%	3.08%

IV. SUMMARY

Table 11 gives the returns based on revenue and total asset values by revenue source. A large part of the return is from appreciation and not earned revenue. The rate of return on revenue is less than 1% of the asset value. The rate of return on assets is 3.08%, reflecting the additional values from land appreciation.

Table 11
Montana Department of Natural Resources and Conservation
Trust Returns by Net Revenue and Total Return[1]
State FY 2002 (Thousands of Dollars)

Source	**Revenue**	**% of Assets**	**Depreciation**	**% of Assets**	**Total Return**	**% of Assets**
Ag & grazing	$11,933	0.31%	$95,037*	2.49%	$116,771	3.08%
Forests	$5,163	2.05%	$3,127*	1.24%	$7,481*	2.96%
Minerals	$8,931	3.32%	$24,149	8.98%	$33,080	12.30%
Special Uses	$1,016	2.32%	$376*	0.85%	$1,420*	3.19%
Total	$27,045	0.66%	$98,636**	3.14%	$125,681**	3.08%

*Includes minerals and/or other bureau returns
** In order to avoid double counting, the total includes Ag & Grazing, Forests, and Special Uses values only.

[1] Trust resources are not managed in the same manner as privately held resources. In addition to providing revenue, other social and political issues are considered in most economic decisions associated with managing trust assets. Consequently, evaluating trust performance solely on the basis of the rate of return without considering all of the goals and objectives of trust asset management could lead to flawed conclusions about the "financial" management of trust assets.

RETURN ON ASSET VALUE BY TRUST AND LAND OFFICE FOR CLASSIFIED FOREST LANDS
(77-1-223-225 MCA)
FY 2002

This section fulfills the requirements of 77-1-223 – 225 MCA, which stipulates that each year the Board of Land Commissioners will provide an annual report based on a specific methodology identifying the average return on revenue to trust beneficiaries from Classified Forest Lands as identified in 77-4-401 MCA as class 2 trust lands[2]. The report must include for each beneficiary:

1. The total acreage of forest land held in trust;
2. A summary of the asset value for the forested lands held in trust;
3. A calculation of the average return from revenue on the asset value for the forested tracts held in trust; and
4. A listing by each Department land office of the total forested acreage administered for the trust beneficiary and a calculation for the average return from revenue on asset value for lands designated to the trust beneficiary.

Classified Forest Lands

The amount and distribution of Classified Forest Lands used for this section of the report is different than those shown in Table A-1 because it includes all classified forestland even though the primary use in not for growing trees. Because adjustments to reflect the primary use of the lands are not included, the acres identified in this section of the report will be identical to last year's. The difference between gross and net acreage is the elimination of all lands that were not utilized for commercial forest production.

Table 1
Total Net Forested Acres by Grant and Land Office

Land Office	ACB	ACI	CS	D D A	PB	SM	SNS	SRS	Univ	Total
CLO	509		9,511	502	2,371	1,120	540	7,299		21,852
NELO			19							19
NWLO	11,818	3,354	192,784	8,309	38,575	9,818	9,366	1,626	155	275,805
SWLO	7,944	2,069	79,002	400	26,366	2,556	3,506	4,488	322	126,654
Total	20,271	5,423	281,316	9,211	67,312	13,494	13,412	13,413	477	424,329

A comparison of the Classified Forest Lands and all trust lands is given in Table 2. The land distribution by trust on classified forests differs considerable from the distribution of land on all trust lands. This is true for the state in total and for the individual land offices. For example, the Common School Trust accounts for about 90% of the total trust lands in the state, but only 66% of the Classified Forest Trust land and less than 45% of the Classified Forest Land in the Central

[2] The methodology used in this section of the report is consistent with the methodology used in the 2000 and 2001 reports. For detailed methodology refer to the 2000 "Return on Asset" report.

Land Office. Public Buildings constitute 3.6% of all trust land but nearly 16% of Classified Forest Trust Land. The result of these differences is that contributions to revenue from classified forestland are likely to differ from revenue contributions from all trust land.

Table 2
A Comparison of the Land Distribution Between Trusts on Classified Forest Lands and all Trust Lands

	CLO		NWLO		SWLO		Total	
Trust	**% of CLO CF***	**% of All Trust land**	**% of NWLO CF***	**% of All Trust land**	**% of SWLO CF***	**% of All Trust land**	**% of All CF***	**% of All Trust land**
ACB	2.3%	0.8%	4.3%	3.8%	6.3%	4.3%	4.8%	0.6%
ACI		3.3%	1.2%	1.0%	1.6%	1.3%	1.3%	1.2%
CS	43.5%	76.3%	69.9%	71.8%	62.4%	74.7%	66.3%	89.8%
DDA	2.3%	2.0%	3.0%	2.9%	0.3%	0.4%	2.2%	0.7%
PB	10.9%	8.6%	14.0%	13.1%	20.8%	12.9%	15.9%	3.6%
SM	5.1%	2.1%	3.6%	3.5%	2.0%	1.7%	3.2%	1.1%
SRS	2.5%	2.7%	3.4%	3.2%	2.8%	1.7%	3.2%	1.2%
SNS	33.4%	4.0%	0.6%	0.3%	3.5%	2.1%	3.2%	1.3%
Univ		0.3%	0.1%		0.3%	0.9%	0.1%	0.4%

* Classified Forest

The asset value for classified forestland is given in Table 3. These estimates of asset value were derived using procedures identified in Title 15, Chapter 44, Part 1.

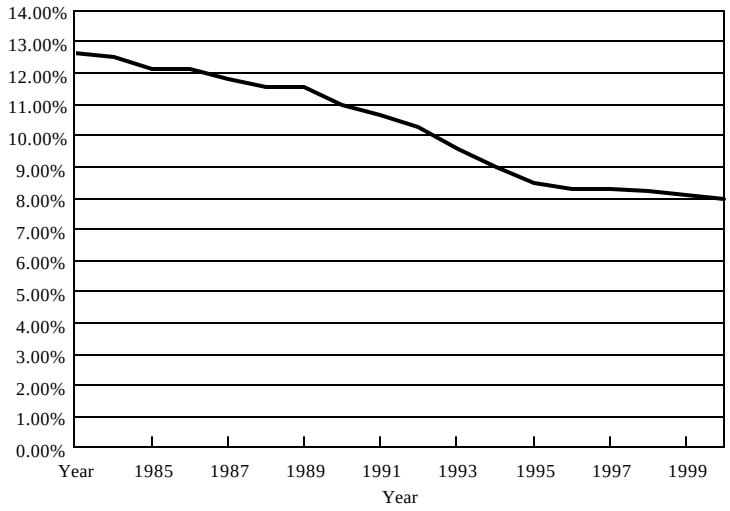
Table 3
Average Total Asset Value by Trust and Land Office Based on Net Forested Acres (2000 $'s)

Land Office	**ACB**	**ACI**	**CS**	**DDA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	$162,451	$	$3,454,165	$309,220	$1,188,310	$557,893	$252,496	$2,486,435	$	$8,410,970
NWLO	7,164,846	1,947,869	125,724,550	5,172,637	22,278,782	6,002,212	5,767,215	1,123,172	85,544	175,266,826
SWLO	4,794,045	843,024	45,009,469	181,777	14,962,552	1,457,938	2,016,855	2,888,865	157,137	72,311,662
Total	$12,121,343	$2,790,893	$174,188,184	$5,663,634	$38,429,644	$8,018,043	$8,036,566	$6,498,472	$242,680	$255,989,458

Common Schools stayed at 68 percent of the total asset value; however, the Northwestern Land Office lost a 1 percent share of their assets dropping from 69 to 68 percent of total assets.

Compared to last year asset values increased slightly, mostly as a result of a continuing decline in interest rates. The overall increase from 2001 was 1.2 percent. The increase was not evenly distributed, however, with most of the increase occurring in the Common School trust lands. Of the total increase of $3,129, 746, $2,335,116 is from Common School trust lands, the remaining $794,630 is distributed among the other eight trusts. Figure 1 shows the average interest rate charged by the Spokane Farm Credit District since 1984. This interest rate is the prime component of the capitalization rate used to compute the asset values shown in Table 3. Average tax rates are also used in computing the discount rate, but the tax rate adds less than 1% to the interest rates. However, as the interest rates continue to fall, the average tax rate assumes more importance in the total discount rate calculation. The interest rate decline has decreased in recent years, and the expectation is that this trend will continue or even reverse itself in the next few years if the economy stabilizes and strengthens.

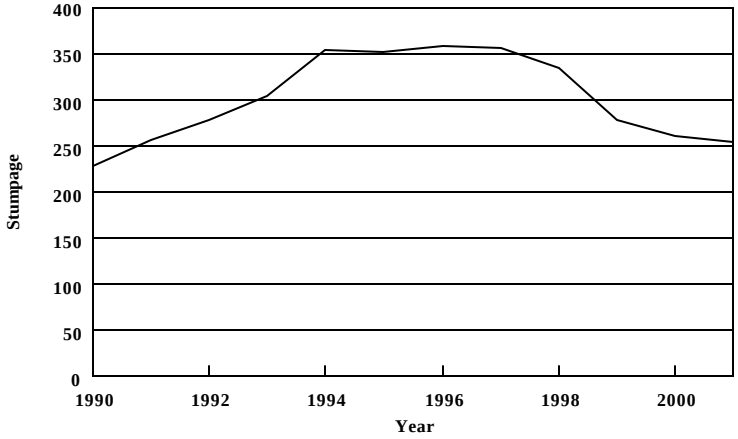
Figure 1
Farm Credit Bank Interest Rates



Source: Montana Department of Natural Resources and Conservation, Trust Land Management and the Spokane Farm Credit Bank District

Figure 2 shows the trend in stumpage fees. Stumpage rates continue to decline, although this year's decrease was quite small. Current market conditions give no indication of price improvements in the near term; however, prices are not expected to decline much further and could increase in the next few years if the housing market remains strong and the timber export issues with Canada are resolved.

Figure 2
Classified Forest Stumpage
Plus Forest Improvement Fees



Source: Montana Department of Natural Resources and Conservation, Trust Lands Management Division

Appreciation is determined by differencing the asset value for trust lands in the current year from the asset value for Classified Forestland 10 years ago. Because of the comparatively high price received during the early to mid-1990's, the asset value in the current years is nearly the same as it was ten years ago. This means that appreciation is

declining despite declining interest rates. This decline will be reflected in the total return on asset numbers and could in the future result in negative appreciation. This is almost certain if interest rates increase.

The ten-year average gross revenue from commodity sales is shown in Table 4. The average is based on ten years of revenue through 2002 adjusted to 2000 dollars using the GDP implicit price deflator published by the Bureau of Economic Analysis.

Table 4
Ten-year Average Annual Gross Revenue From Commodity Sales FY 2002

Land Office	ACB	ACI	CS	DDA	PB	SM	SNS	SRS	Univ	Total
CLO	$512	$0	$178,414	$1,415	$4,209	$1,413	$22,346	$15,296	$0	$223,604
NWLO	216,611	22,987	2,648,658	266,688	444,925	105,615	45,431	11,620	5,184	3,767,719
SWLO	270,964	67,144	962,196	7,743	454,463	52,920	202,539	87,864	8,205	2,114,037
Total	$488,087	$90,131	$3,789,268	$275,845	$903,596	$159,948	$270,316	$114,780	$13,389	$6,105,360

Timber revenue accounts for 95.6% of the gross revenue earned on classified forestland. The balance of gross revenue comes from agriculture and grazing revenue (1.5%), mineral revenue (1.6%), and special use revenue (1.2%).

Average annual gross revenue declined by about $31,000 (0.5%) from last year's level. The decrease reflects the fact that, in price-adjusted terms, current revenue is declining from prior years. The decline in revenue is compounded by the fact that in the last ten years' stumpage rates have been declining for most of the period. Without increasing stumpage or the development of additional resources on classified forests, this decrease is likely to continue.

Net revenue reflects the difference between gross revenue and the State's expense of producing the various commodities that are available on classified forestland. Net revenue has remained nearly constant. In absolute terms, net revenue has increased by slightly over $5,000; in percentage terms, this is less than two-tenths of one percent (0.2%). This change is negligible and statistically insignificant.

Table 5
Ten-year Average Annual Net Revenue from Commodity Sales
(2000 $'s)

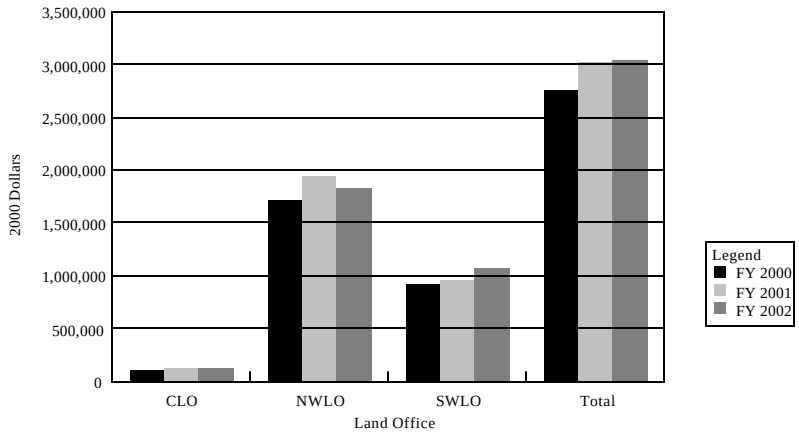
Land Office	ACB	ACI	CS	DDA	PB	SM	SNS	SRS	Univ	Total
CLO	$367	$0	$98,563	$893	$2,707	$1,115	$20,785	$8,038	$0	$132,467
NWLO	105,123	11,751	1,282,031	127,831	215,236	52,423	22,109	5,615	2,502	1,824,621
SWLO	134,605	32,887	488,342	5,864	232,389	27,224	99,935	46,639	7,009	1,074,895
Total	$240,094	$44,638	$1,868,937	$134,588	$450,333	$80,762	$142,828	$60,291	$9,511	$3,031,983

Net revenues are up less than gross revenue. This implies that the average cost of producing the commodities has increased. This is due to several reasons; however, it was during this period

that expanded analysis of timber sales was required by MEPA, and it is likely that the costs associated with this sale requirement are having an effect on sale expenses. The increase in expense is very small.

Figure 3 gives a graphical comparison of net revenue for the last three years. From Figure 3 it is easy to see that the total of all regions has not changed much this year, but that there have been some shifts in the net revenue between the different regions. The Central Land Office's net revenue has changed very little, while the Northwestern Land Office's net revenue has declined and the Southwestern Land Office's net revenue has increased. In percentage terms, the NWLO declined by 6% and the SWLO increased by 12.6% compared to FY 2001 net revenue levels.

Figure 3
Average Annual Net Revenue from Commodity Sales
FY 2000 to FY 2002



Source: Montana Department of Natural Resources and Conservation, Trust Lands Division

The total return on assets for FY 2002 is down compared to FY 2001. Because the net revenue is almost the same, the reason for decline must be from lower land appreciation values. The reason for the lower appreciation values is the continuing decline in timber prices over the last ten years. These prices are shown in shown in Figure 2. As indicated in last year's report, the decrease in interest rates has not been large enough to offset the decrease in timber prices.

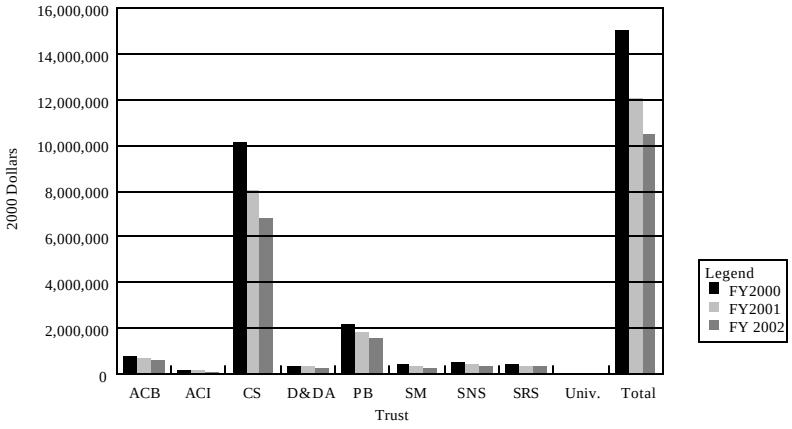
Table 6 shows the total return to assets for FY 2002. All of the trusts showed a decrease in total assets compared to FY 2002; however, the Central Land Office had an increase in total assets, whereas the Northwestern and Southwestern Land Offices both showed a decrease in total return.

Table 6
Ten-year Average Annual Return on Total Assets by Trust and Land Office for FY 2002
(2000 $'s)

Land Office	ACB	ACI	CS	DD A	PB	SM	SNS	SRS	Univ	Total
CLO	$10,042	$0	$304,873	$19,449	$74,343	$34,864	$36,101	$156,258	$0	$635,931
NWLO	231,972	44,916	3,737,135	222,906	601,996	160,857	127,721	28,589	3,930	5,160,022
SWLO	382,829	74,646	2,797,655	16,806	919,719	101,605	202,812	199,102	14,819	4,709,993
Total	$624,843	$119,562	$6,839,664	$259,161	$1,596,058	$297,326	$366,633	$383,950	$18,749	$10,505,946

The total loss in return to assets from FY 2001 was $1,624,257, or a decrease of 13.4%. This compares to last year's decrease of nearly $3 million or 19.6%. In both cases the majority of the decrease is due to decreasing appreciations. Of the $1,624,257 loss this year, all of it was the result of lower appreciation value. None of the trusts showed a higher return on assets this year compared to last year.

Figure 5
Annual Return to Total Assets by Trust
FY 2000 to FY 2002



Montana Department of Natural Resources and Conservation, Trust Lands Division

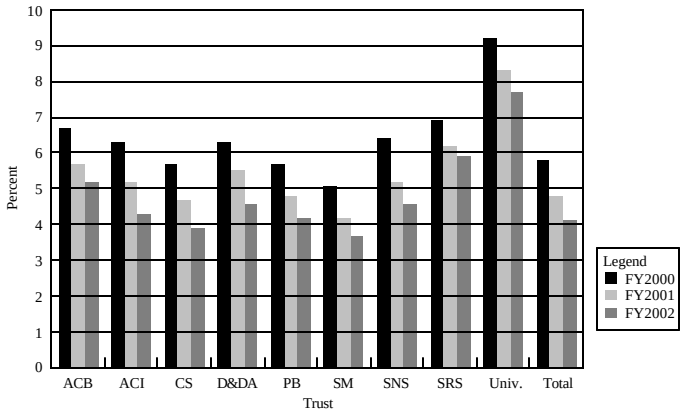
The rate of return on assets by land office and by trust for FY 2002 is shown in Table 7. The overall rate of return is down 0.7% from last year and nearly 2% from FY 2000. As indicated earlier, the gain from lower interest rates is likely to continue to decline and may, if current conditions hold, turn into losses if interest rates increase. There is nothing in the current timber market to indicate significant price increases in the near future. Figure 6 shows the return on the individual trusts. The decrease in the rate of return is reflected in every trust due to the consistent decrease in appreciation for all trusts.

Table 7
Ten-year Average Rate of Return on State Classified Forest Land FY 2002
(2000 $'s)

Land Office	ACB	ACI	CS	DDA	PB	SM	SNS	SRS	Univ	Total
CLO	6.2%	0.0%	8.8%	6.3%	6.3%	6.2%	14.3%	6.3%	0.0%	7.6%
NWLO	3.2%	2.3%	3.0%	4.3%	2.7%	2.7%	2.2%	2.5%	4.6%	2.9%
SWLO	8.0%	8.9%	6.2%	9.2%	6.1%	7.0%	10.1%	6.9%	9.4%	6.5%
Total	5.2%	4.3%	3.9%	4.6%	4.2%	3.7%	4.6%	5.9%	7.7%	4.1%

Regional changes are likely to be more volatile than the total, however this year only the NWLO showed any significant change declining from 3.9% to 2.9%. The most significant change in trust rates of return occurred on the Common School lands where the rate of return declined from 4.7% to 3.9%

Figure 6
Rate of Return from Classified Forest Lands
FY2000 to FY2002



Source: Montana Department of Natural Resources and Conservation, Trust Lands Division

Northeastern Land Office rate of return has changed little since last year. The asset value is now $4,217 compared to $4,185 in FY 2001. The Gross return is $8,460 or 200% of the asset value, the net return is $3,909 or a 93% return on assets, and finally the return on assets is $4,219 or approximately a 100% return on assets. These returns are largely the result of a timber sale in the 1990's. When this sale is aged out of the revenue stream the rate of return will drop dramatically.

Summary

The estimated return on assets continues to decline, reflecting substantial price decreases over the twenty years included in the analysis. Fall interest rate have not been sufficient to keep appreciation from being smaller each year. Commodity sales changed little from last year, so that all of the decline in return on assets can be attributed to the continuing fall in appreciation.

Table 8 shows a comparison of acreage owned and net revenue earned by trust. The acreage and earnings are generally comparable; however, the distribution of earnings has changed somewhat since last year. The Common School trust is proportionately lower this year than in FY 2001. This has allowed trusts such as the MSU Trust and Public Building Trusts to obtain a larger share relative to the trust acreage. The University of Montana Trust and the School of Mines

Table 8
Proportion of Net Revenue Earned and Net Acreage by Trust

	Net Acres	Net Revenue
Trust	**% of total**	**% of total**
ACB	4.78%	7.92%
ACI	1.28%	1.47%
CS	66.30%	61.64%
DDA	2.17%	4.44%
PB	15.86%	14.85%
SM	3.18%	2.66%
SNS	3.16%	4.71%
SRS	3.16%	1.99%
Univ	0.11%	0.31%
Total	100.00%	100.00%

also improved. As indicated last year, in the long run the return should be fairly proportional to the acreage, although this could vary somewhat due to differences in resource endowments.

The asset values derived from this methodology do not represent a market value of Montana's Classified Forest Land; they are a capitalization of a limited number of resource values into a land valuation. However, in a market situation, other values could make the market value of the land either higher or lower than the estimates derived in this analysis. Other considerations not included are access, scenic values, and intense agricultural use, to name a few. In addition, other areas may contain non-market values which are difficult to quantify and capitalize into the land value. Thus, this analysis does not necessarily represent the market value of the land. It does, however, represent a reasonable estimate of the value and return based on the current market uses.

APPENDIX

The appendix is an analysis of each of the revenue-generating activities associated with the "trust lands." While each activity is independent, there are some commonalities. The asset determination is based on individual year information rather than multi-year averages. The result is more volatility in the outcomes, but the information will reflect the most current return on asset information available. The approach to asset valuation has been somewhat pragmatic and was generally determined by the information available. Direct appraisal information was always used if it was available. Discounted values of a resource were used if a reasonable estimate of the future value of the resource was available. Capitalization was used as the last choice because of the circular nature of the method and the difficulty in identifying an appropriate interest rate.

Not all trusts in each land office earn revenue each year. The analysis of each of the individual trust revenue sources is self-contained. This will result in some of the trusts showing no return on assets from their trust lands in some areas from a particular revenue-earning activity. An area may have earnings from other sources that are not part of their classification; e.g., Special Uses may have earnings on classified forestland. For this reason, the information in the main body of the report provides the most comprehensive information on trust returns.

A. CLASSIFIED TIMBER LANDS

The method used to determine the return on assets on Classified Forest Lands is prescribed in law (77-1-223 MCA & 77-1-224 MCA). This section is meant to meet the requirements of these laws. Two estimates of the return on assets will be included in this section. The first will be made consistent with the approach used in analyzing the return on assets for other trust land resources; the second will be based on the methodology identified in statute and will meet the legal requirements of the statutes. To maintain consistency, the first approach is used in the overall analysis of the return on assets for all trust land.

Table A-1 shows the net classified forest by land office and by grant. These numbers differ slightly from previous years in order to reflect the change in primary use of the land from forest to special uses. Official reclassification has not taken place, but is expected to occur during FY 2002. In addition, other reclassifications are likely to occur which will make next years' net Classified Forest Lands differ from the ones in Table A-1.

Table A-1
Montana Department of Natural Resources and Conservation
Net Classified Forest Acres by Land Office and Trust
State FY 2002 (Acres)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	509	0	9,511	502	2,371	1,120	537	6,613	0	21,163
ELO	0	0	0	0	0	0	0	0	0	0
NELO	0	0	19	0	0	0	0	0	0	19
NWLO	11,818	3,247	192,784	8,309	37,409	9,818	8,802	1,574	155	273,916
SLO	0	0	0	0	0	0	0	0	0	0
SWLO	7,944	2,069	79,002	400	25,173	2,556	3,504	4,466	322	125,437
Total	20,271	5,316	281,316	9,211	64,953	13,494	12,843	12,653	477	420,534

The total change in net classified forest acreage is less than 1%; however, some trusts will have a larger percentage change. This is not a reduction in the acres earning revenue for any specific trust, but a reclassification of the acreage to the primary income-earning activity.

Table A-2 shows the asset value by land office and trust on Classified Forest Lands. Capitalization of timber earnings is used to determine the asset value by land office and trust for timber. The capitalization rate used for FY 2002 is 7.98%, the same loan rate the Farm Credit Bank District of Spokane used to capitalize the value of forest lands under (77-1-223-225 MCA), the legislatively-mandated return on asset report. The difference is that in this case the interest rate is for the current year rather than the average of the sum of the property tax rates and interest rates for a period of 5 years. This rate is a lending rate, not an earnings rate, and as such is inflated since it also includes a profit and risk margin for the banks. The actual earnings potential would reflect a lower rate. In addition to the capitalized forest earnings, other assets that are derived from earnings of other activities (Mining and Special Uses) are included as part of the asset value of classified forest land. Prorating on the basis of acreage is the method used to determine the amount of assets from other activities allocated to classified forest land. The estimates of asset value from other activities are based on different techniques that are discussed under each of the activities. Use of the current year estimates rather than a multi-year average will cause more volatile changes in the asset value year to year, but will provide for a more current estimate of the asset value. Current year market interest rates contain components of risk, anticipated inflation and expected real price changes.

Table A-2
Montana Department of Natural Resources and Conservation
Forested Land Asset Value by Land Office and Trust
State Classified Forests FY 2002
(Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	107	1	2,397	105	498	234	138	1,389	10	4,879
ELO	0	0	0	0	0	0	0	0	0	0
NELO	0	0	9	0	0	0	0	0	0	9
NWLO	8,904	2,432	143,928	6,217	27,917	7,552	6,577	1,173	116	204,816
SLO	0	0	0	0	0	0	0	0	0	0
SWLO	2,798	692	26,805	159	8,423	8,55	1,195	1,505	108	42,540
Total	11,809	3,126	173,138	6,480	36,838	8,641	7,910	4,068	234	252,244

Table A-3 shows the net return on assets on Classified Forest Lands for FY 2002. This includes all of the net revenue available for allocation to the trust from timber sales, net revenue from minerals, special uses revenue earned on Classified Forest Lands, and appreciation. Net revenue is gross revenue less forest improvement revenue on classified forests and operating revenues from all revenue sources.

Table A-3
Montana Department of Natural Resources and Conservation
Net Return on Assets on Classified Forests by Land Office and Trust
State Classified Forests FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	1	0	204	1	3	1	2	6	1	220
ELO	0	0	0	0	0	0	0	0	0	0
NELO	0	0	1	0	0	0	0	0	0	1
NWLO	550	1	2,012	35	465	281	255	0	0	3,599
SLO	0	0	0	0	0	0	0	0	0	0
SWLO	190	15	2,334	1	634	108	22	358	0	3662
Total	741	17	4,551	37	1,102	390	279	364	1	7,481

Earnings from other agencies are included in Table A-3. In order to fully identify the earnings on Classified Forest Lands and the associated return on assets, net earnings from Special Uses and from Minerals on classified forests must also be included. These additional earnings are based on average earning per acre by trust and land office from the "other income" sources. For Special Use earnings, it was possible to prorate the earnings back to the trust and land office of origin; however, Mineral earnings were not as easily identified by trust. These earnings were prorated to the different trusts based on the amount of land owned by the trust within a particular land office boundary. The

"return" includes land appreciation. This results in some areas showing a return when no economic activity has occurred.

Table A-4 shows the rate of return on assets on Classified Forest Lands. This rate includes earnings from all other classified forest uses in addition to the return from timber harvests. Appreciation is also included as part of the rate of return.

Table A-4
Montana Department of Natural Resources and Conservation
Net Rate of Return on Classified Forests by Land Office and Trust
State Classified Forests FY 2002
(Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	0.94%	38.67%	8.50%	1.17%	0.67%	0.43%	1.19%	0.45%	8.79%	4.50%
ELO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NELO	0.00%	0.00%	2.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.28%
NWLO	6.17%	0.06%	1.40%	0.56%	1.66%	3.73%	3.59%	0.01%	0.00%	1.75%
SLO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SWLO	6.78%	2.23%	8.71%	0.77%	7.52%	12.63%	1.84%	23.78%	0.06%	8.61%
Total	6.27%	0.55%	2.63%	0.57%	2.99%	4.52%	3.28%	8.95%	0.72%	2.96%

Rates of return vary substantially between regions and trusts depending on earnings appreciation and the contribution of non-classified producers to earnings. Some areas with no timber activities show earnings from other sources, some from appreciation. These rates of return will vary substantially year to year, depending on the economic activity occurring within each trust and land office. The asset value will also vary year to year depending on the real interest rate and current year activity on the forests. The average rate of return this year was slightly under 3%. The rate of return on revenue only was 2.05%.

B. SPECIAL USE LANDS

Special Use programs were the most complex of all the revenue-earning activities to analyze. Programs included under this classification are cabin site leasing, special leases and licenses, land use licenses and recreational licensing. All of the programs differ substantially in information and characteristics. The Right-of-Way and Land Sales programs were not included in the analysis, since these activities involve an exchange of assets, money for land, or a program expense. The money from land sales is deposited into the permanent fund, where it can earn money for the trust through other investments.

The land base for special uses is very small relative to the land base for other income-earning activities. A disproportionate share of the money from special uses comes from fees on lands classified as forested, grazing and agriculture. The rate of return on many of the Special Use activities is relatively high, however, because the revenue is

dominated by cabin site leases that have a limited earnings potential (3.5% of the appraised value[3]), the overall rate of return is lower than would be otherwise expected.

Table B-1
Montana Department of Natural Resources and Conservation
Total Net Special Uses Acres by Land Office and Trust
State FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	137	119	1,564	50	116	963	41	0	0	2,990
SWLO	602	0	542	56	20	0	18	30	0	1,268
CLO	0	8	1,789	0	11	2	60	34	5	1,909
NELO	0	0	1,562	0	0	14	82	5	8	1,671
SLO	0	20	599	0	0	0	0	0	0	619
ELO	0	0	295	0	0	0	0	0	8	303
Total	739	147	6,351	106	147	979	201	69	21	8,760

Table B-1 shows the estimated acreage specific to Special Uses. Special Use programs cover a significantly larger amount of the total trust surface acreage, than the lands identified in Table B-1. Table B-1 constitutes only those lands whose purpose is limited to or whose primary use is one of the Special Use programs. This estimate was derived from information from several sources. Where actual acreage numbers were available, those were used. In the case of some leases, direct acreage amounts were not available. In these instances, acreages were estimated based on the average lease acreage identified in similar uses. This acreage number is higher than in the past because many of the parcels were previously counted as part of Classified Forest Lands or grazing. The numbers here are estimates that should be substantially improved upon with the implementation of the new Trust Land Management system. Consequently, these numbers should be viewed as preliminary estimates.

The determination of asset value in Special Uses is a combination of several techniques. In some instances, direct appraisal information is available. Most cabin sites have direct appraisal information available, some special use sites also have appraisal information available. The appraisals are, for the most part, "out of date." Cabin site appraisals are currently in the process of being updated, but were not available for this analysis. For the purposes of this analysis the most recent appraisal was used and updated to an estimated FY 2002 value using the implicit price deflators published by the Bureau of Economic Analysis. This approach adjusts for general price increases but does not reflect price changes due to market changes specific to an industry. The reappraisal process recognizes industry- specific changes and results in better estimates of the market value of the land. The reappraisals should be available for next year's report. Special Use lands that did not have an appraisal were valued using capitalization. Over 80% of the asset value comes from adjusted appraisal data.

[3] The Land Board has recently raised the rate to 5%. This rate is being "phased in" beginning in January 2003.

Table B-2 Montana Department of Natural Resources and Conservation Total Net Special Uses Asset Value by Land Office and Trust FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DDA**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	1,588	251	6,342	290	555	13,488	235	0	0	22,748
SWLO	7,445	0	5,020	310	170	0	106	1,489	0	14,540
CLO	0	21	4,544	0	23	32	234	86	33	4,974
NELO	0	0	539	0	0	7	4	2	87	639
SLO	0	168	468	0	0	0	0	0	0	636
ELO	0	0	269	0	0	0	0	0	2	271
Total	9,033	440	17,182	600	749	13,527	578	1,577	122	43,808

The Department identifies total gross revenue for Special Uses in its annual report. These monies are distributed to the individual land offices based on the location of the Special Use lands, and in the case of Special Use activities occurring on non-special use lands on the location of the activity, when known. In some cases the trust associated with a specific amount of revenue is unknown; in these cases the revenue is prorated to the trusts based on land distribution. Recreation Licenses are identified by county and can be allocated based on the individual county designation. In Table B-3, no distribution is made of Special Use revenue to lands classified for other uses that earn Special Use revenue (e.g., classified forests that have recreational licenses issued on them).

Table B-3 Montana Department of Natural Resources and Conservation Annual Gross Revenue from Commodity Sales by Land Office and Trust Special Use Land FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DDA**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**TOTAL**
NWLO	22	10	300	12	23	508	9	0	0	884
SWLO	283	0	209	15	10	3	7	60	0	586
CLO	0	8	281	4	17	2	13	10	2	338
NELO	0	0	171	0	4	1	2	1	6	185
SLO	0	12	172	0	0	0	0	0	0	184
ELO	0	0	119	0	0	0	0	0	6	126
TOTAL	305	30	1,253	31	54	514	31	72	14	2,303

Table B-4 shows the net revenue reduced by the estimated operating expense for administering the Special Uses program. Here again, no distribution of the revenue to other programs is made.

Table B-4
Montana Department of Natural Resources and Conservation
Annual Net Revenue From Commodity Sales by Land Office and Trust
Special Use Lands FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DDA**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**TOTAL**
NWLO	18	7	28	10	9	484	3	0	0	558
SWLO	273	0	12	10	7	2	1	57	0	361
CLO	0	3	46	2	1	0	9	10	2	75
NELO	0	0	28	0	2	0	0	0	5	35
SLO	0	5	48	0	0	0	0	0	0	53
ELO	0	0	9	0	0	0	0	0	6	15
TOTAL	291	16	172	22	18	486	13	67	13	1,097

The annual return to total assets is calculated by first distributing the Special Uses revenue earned on non-Special Use lands to the program where they are earned. Identifying the other program lands that had cabin sites, etc. and prorating the revenue to these programs accomplished this. After the revenue was distributed, revenues earned by other programs (Minerals etc.) on Special Use lands were added back to the Special Uses asset accrual. Finally, any estimated appreciation that occurred on Special Use lands was added to the revenue accrual. This is the annual return to total assets shown in Table B-5. This table represents the estimated earnings (appreciation and net revenue) from all sources on special use lands for FY 2002.

The return is generally largest on those trusts and land offices which have the most acreage. Common Schools have nearly 90% of the Trust Land in the state and, not surprisingly, have earned the largest amount of revenue.

Table B-5
Montana Department of Natural Resources and Conservation
Net Return to Total Assets by Land Office and Trust
Special Use Lands FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	29	4	252	7	18	351	11	14	0	686
SWLO	158	0	145	6	9	77	2	36	0	433
CLO	0	3	88	0	5	1	4	4	0	106
NELO	0	0	41	0	2	0	1	0	3	46
SLO	0	5	79	0	0	0	0	0	0	84
ELO	0	0	60	0	0	0	0	0	0	60
Total	187	13	664	13	33	429	18	54	3	1,415

Table B-6 represents the rate of return on the assets by land office and trust. The rates to do not vary substantially because some of the revenues were prorated based on acreage as was discussed previously. The rates are calculated by dividing the return value by the total asset value.

Table B-6
Montana Department of Natural Resources and Conservation
Annual Rate of Return to Total Assets by Land Office and Trust
Special Use Lands FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**D&DA**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**TOTAL**
NWLO	1.83%	1.67%	3.98%	2.34%	3.17%	2.60%	4.71%	0.00%	0.00%	2.95%
SWLO	2.12%	0.00%	2.88%	1.81%	5.10%	0.00%	1.46%	2.40%	0.00%	2.97%
CLO	0.00%	14.75%	1.94%	0.00%	20.73%	2.75%	1.68%	5.00%	0.00%	2.12%
NELO	0.00%	0.00%	7.58%	0.00%	0.00%	5.15%	15.84%	16.13%	3.02%	7.27%
SLO	0.00%	3.09%	16.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.24%
ELO	0.00%	0.00%	22.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	22.07%
TOTAL	2.07%	2.87%	3.87%	2.12%	4.36%	3.17%	2.96%	2.56%	2.15%	3.19%

The average rate of return was 3.19% in FY 2002. The return varied by region and trust. The overall average is usually close to the return on common school lands because common school lands dominate other trusts in terms of size. In some cases, the return is large relative to the overall rate of return. In most cases this occurs because the size of the special interest is quite small relative to the total and the return is large, often because there is another resource such as minerals or forests which contribute to the return. This results in a comparatively large rate of return.

C. AGRICULTURE AND GRAZING LANDS

The net Agricultural acreage was determined by taking total surface acreage and subtracting Classified Forest acreage and Special Uses acreage. There is no independent data source to identify the acres that would be classified as Agriculture and Grazing. The result is that the number of acres identified in Table C-1 may be lower than the total identified. Agricultural land is by far the largest, accounting for nearly 96% of all surface trust lands. Because of the method used to identify Agricultural lands, it is not possible to shift funds from Agricultural lands to either Classified Forest or Special Use lands. Consequently, the revenue asset value and rate of return will all be understated in these latter two classifications.

Table C-1
Montana Department of Natural Resources and Conservation
Total Net Agriculture and Grazing Acres by Land Office and Trust
State FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	0	2,104	16,893	588	912	336	0	0	214	21,047
SWLO	249	1,425	85,413	0	3,109	42	44	884	669	91,835
CLO	9,022	39,403	917,912	23,218	102,032	25,246	31,827	36,563	3,857	1,189,080
NELO	15,667	0	2,051,054	4,052	14,992	20,831	18,396	12,040	9,504	2,146,536
SLO	0	3,735	398,240	0	0	0	0	3,408	504	405,887
ELO	0	42	998,154	0	1,600	239	759	148	2,815	1,003,757
Total	24,938	46,709	4,467,668	27,858	122,645	46,695	51,026	53,042	17,563	4,858,142

The assets and the return on assets for Mineral lands are almost entirely combined into the Agricultural and Grazing category in the overview and summary portions of the report. Agricultural and Grazing values on state trust lands are determined separately by identifying the average Agriculture and Grazing value using estimates from the Department of Revenue, then adjusting these values to trust land use levels (e.g., lower grazing rates on trust lands compared to private lands). Finally, the estimates are regionalized based on land values identified in the Census of Manufacturing, published by the U. S. Census Bureau. The separate Agriculture and Grazing rates were then combined based on the proportion of agriculture and grazing acres in each county. Asset value on Agriculture and Grazing lands constitutes the largest share of total asset value.

Table C-2
Montana Department of Natural Resources and Conservation
Total Net Agriculture and Grazing Land Asset Value by Land Office and Trust
Agriculture and Grazing Lands FY 2002 (Thousands of Dollars)

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	89	3,820	30,635	1,051	1,645	383	12	13	390	38,039
SWLO	292	2,478	148,097	25	5,401	73	53	1,525	1,162	159,106
CLO	8,680	37,212	869,434	21,936	96,158	24,042	30,229	34,659	3,704	1,126,055
NELO	10,778	1,129	1,567,970	3,011	10,617	15,765	13,476	8,728	7,437	1,638,912
SLO	0	3,056	323,860	0	0	0	0	2,778	418	330,111
ELO	0	68	494,849	0	740	119	340	74	1,427	497,617
Total	19,840	47,763	3,434,845	26,023	114,562	40,382	44,111	47,776	14,538	3,789,840

Gross revenue shown in Table C-3 is $13,280,000. Agricultural and Grazing activities as a rule generate more revenue that any other trust activity. As with all other trusts, Common School lands earn the most revenue. Because there was no detailed information by trust and land office, the data was prorated based upon the acreage in each of these categories.

Table C-3 Montana Department of Natural Resources and Conservation Annual Gross Revenue from Commodity Sales by Land Office and Trust Agriculture and Grazing Lands FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	0	6	46	2	2	1	0	0	1	57
SWLO	1	4	231	0	8	0	0	2	2	249
CLO	24	107	2,488	63	277	68	86	99	10	3,223
NELO	42	0	5,672	11	41	56	50	33	26	5,931
SLO	0	10	1,079	0	0	0	0	9	1	1,100
ELO	0	0	2,705	0	4	1	2	0	8	2,720
Total	68	127	12,222	76	332	127	138	144	48	13,280

The net revenue in Table C-4 reflects the gross revenue reduced by estimated management costs.

Table C-4 Montana Department of Natural Resources and Conservation Annual Net Revenue From Commodity Sales by Land Office and Trust Agriculture and Grazing Lands FY 2002(Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**UM**	**Total**
NWLO	0	5	12	1	1	1	0	0	0	19
SWLO	0	0	110	0	4	0	0	1	1	116
CLO	24	60	2,314	61	111	62	80	98	10	2,819
NELO	39	0	5,299	10	12	52	48	30	25	5,515
SLO	0	10	994	0	0	0	0	8	1	1,013
ELO	0	0	2,602	0	2	0	0	0	8	2,614
Total	63	75	11,331	72	130	115	129	138	46	12,097

The $116,000,000 return generated on Agricultural and Grazing lands shown in Table C-5 is entirely from minerals and agricultural sources. Appreciation accounts for a substantial portion of earnings and is included in the estimate.

Table C-5 Montana Department of Natural Resources and Conservation Annual Return to Total Assets by Land Office and Trust Agriculture and Grazing Lands FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	ACB	ACI	CS	DB	PB	SM	SNS	SRS	UM	Total
NWLO	42	69	1,711	84	263	18	2	2	5	2,196
SWLO	19	29	1,119	1	20	20	9	70	13	1299
CLO	185	729	17,861	428	1,871	487	606	724	78	22,969
NELO	263	152	52,032	93	292	521	405	251	261	54,270
SLO	0	70	10,377	0	0	0	0	63	10	10,520
ELO	0	4	25,381	0	36	6	18	3	67	25,515
Total	510	1,054	108,480	606	2,482	1,051	1,040	1,113	434	116,771

Table C-6 shows the rate of return based on the distributed revenues. Because of the method of distribution, the total estimates are the most reliable.

Table C-6 Montana Department of Natural Resources and Conservation Annual Rate of Return to Total Assets by Land Office and Trust Agriculture and Grazing Lands FY 2002 (Thousands of Dollar										
	Trust									
Land Office	ACB	ACI	CS	D&DA	PB	SM	SNS	SRS	Univ	Total
NWLO	47.51%	1.80%	5.58%	8.03%	15.98%	4.67%	13.91%	17.53%	1.34%	5.77%
SWLO	6.50%	1.19%	0.76%	2.05%	0.38%	26.57%	16.46%	4.59%	1.10%	0.82%
CLO	2.14%	1.96%	2.05%	1.95%	1.95%	2.03%	2.01%	2.09%	2.10%	2.04%
NELO	2.44%	13.47%	3.32%	3.08%	2.75%	3.30%	3.01%	2.88%	3.52%	3.31%
SLO	0.00%	2.30%	3.20%	0.00%	0.00%	0.00%	0.00%	2.26%	2.41%	3.19%
ELO	0.00%	6.35%	5.13%	0.00%	4.85%	4.63%	5.35%	4.69%	4.68%	5.13%
Total	2.57%	2.21%	3.16%	2.33%	2.17%	2.60%	2.36%	2.33%	2.98%	3.08%

D. MINERAL LANDS

The trust owns about 6,300,000 acres in mineral rights. These rights are divided in coal, oil and gas, and other minerals. From a revenue-generating standpoint, coal, oil and gas generated about 98% of the mineral resource revenue in FY 2002, and the remaining 2% came from all other sources, mostly sand and gravel. Because the extraction of different minerals is generally not mutually exclusive, the value of the minerals and the asset values of each mineral is additive. Each mineral's asset value is estimated separately and then added to achieve a total value. The subsurface values can be added to the surface values to obtain a total estimate of values for the trust. This section provides the distribution of acreages by trust and land office and utilizes this information in conjunction with earnings to develop an asset value and rate of return on Mineral properties.

Tables D-1a through D-1c show the acreage associated with each of the Mineral resources. The largest number of acres is associated with oil and gas, followed by coal and then other minerals.

Table D-1a
Montana Department of Natural Resources and Conservation
Total Net Coal Subsurface Acres by Land Office and Trust
State FY 2002

	Trust									
	ACB	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	12,732	4,000	262,041	9,659	40,574	12,176	10,166	1,469	524	353,341
SWLO	11,487	3,655	211,945	1,835	32,312	4,707	4,516	8,741	2,553	281,751
CLO	22,818	41,777	1,233,166	25,367	136,028	42,664	49,461	50,729	9,681	1,611,691
NELO	40	21,870	2,370,697	4,309	18,257	26,492	19,567	12,875	16,712	2,490,819
SLO	0	5,178	422,045	0	0	0	0	3,850	1,120	432,193
ELO	0	480	928,355	0	1,080	228	28	141	3,165	933,477
Total	47,077	76,960	5,428,249	41,170	228,251	86,267	83,738	77,805	33,755	6,103,272

Source: Montana DNRC

Table D-1b
Montana Department of Natural Resources and Conservation
Total Net Oil and Gas Subsurface Acres by Land Office and Trust
State FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	12,732	4,000	261,985	9,659	40,974	12,176	10,166	1,469	524	353,685
SWLO	11,487	3,655	206,673	1,835	32,312	4,707	4,516	8,742	2,553	276,480
CLO	22,373	41,777	1,208,400	25,367	92,785	42,664	49,461	50,456	9,681	1,542,964
NELO	0	21,870	2,477,905	4,309	5,642	26,492	15,756	8,510	16,172	2,576,656
SLO	0	5,178	432,864	0	0	0	0	3,850	1,120	443,012
ELO	0	480	1,001,451	0	1,080	228	723	141	3,165	1,007,268
Total	46,592	76,564	5,589,278	41,170	172,793	86,267	80,622	73,168	33,215	6,200,065

Source: Montana DNRC

Estimating the asset value of "other" Minerals land is conceptually easy because the only value associated with the mineral right is the mineral itself. Since this is the case, the appropriate measure of the value can be obtained through capitalization, assuming an appropriate capitalization rate can be identified. The primary problem with all Mineral resources is to estimate the economic volume or occurrence level of the mineral. In this analysis, the assumption will be that the minerals occur on state lands at the same rate as all other lands in the state. Most of the "other" Mineral revenue is from the sale of "aggregates"; sand and gravel deposits will dominate the estimate of "other" mineral values.

Table D-1c
Montana Department of Natural Resources and Conservation
Total Net Other Minerals* Subsurface Acres by Land Office and Trust
State FY 2002

	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	12,660	3,880	251,751	8,667	40,377	11,240	10,125	1,469	364	340,532
SWLO	9,740	3,495	181,239	1,475	30,510	3,867	4,176	5,622	1,917	242,040
CLO	20,578	38,262	1,095,940	24,132	117,992	34,331	42,237	48,527	5,026	1,427,025
NELO	40	16,310	2,273,780	3,680	18,665	19,105	21,401	12,755	10,061	2,377,403
SLO	0	5,018	408,130	0	0	0	0	3,249	480	416,876
ELO	0	480	991,797	0	1,617	228	723	141	2,694	997,679
Total	43,018	67,445	5,202,637	37,954	209,161	68,771	78,662	71,763	20,542	5,801,555

Source: Montana DNRC

* Includes all minerals except coal, oil and gas

The approach used in estimating coal, oil and gas asset values is to use known reserves and the mineral price. The asset value of a mineral can be estimated by multiplying the current price times the estimated production for the life of the field or deposit, estimating a net revenue based on historic industry costs, and discounting this net revenue stream back to its present value, using the known reserves and the duration of production. In estimating reserves on coal, and in particular on oil and gas, the reserves will vary with the price; as the price increases, additional oil, gas, and coal become economic to produce, and the size of the reserve estimate increases. Conversely, if prices fall, less oil, gas or coal becomes economic to produce, and the reserve estimate falls. For the purpose of this analysis, it was assumed: 1. The current price will hold throughout the entire production of the field; 2. Only known reserves, reserves based upon current producing fields are used in the estimate; and 3. Production will continue at its current rate until the reserves are depleted.

The federal government publishes known Mineral reserve estimates for each State of the United States. This reserve estimate was used as the basis of estimating the asset value for minerals in the State of Montana. The analysis assumes that the occurrence, type and volume of reserves is the same on State-owned Trust Lands as the rest of the state. The method used to estimate the asset value of each different mineral categories is discussed below. A summary of the individual commodity asset values is shown in table D-2.

Table D-2 Montana Department of Natural Resources and Conservation Total Mineral Asset Value by Land Office and Trust Mineral Lands FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
NWLO	7	2	111	4	19	5	5	0	0	153
SWLO	5	2	82	1	13	2	2	2	1	108
CLO	287	546	15,703	332	1,221	552	640	660	124	20,064
NELO	0	1,129	128,203	224	304	1,434	821	447	860	133,420
SLO	0	153	14,343	0	0	0	0	129	26	14,651
ELO	0	51	99,897	0	107	24	40	15	313	100,448
Total	299	1,883	258,337	560	1,664	2,017	1,508	1,252	1,324	268,845

For oil and gas, asset estimates are made using the estimated profit from oil production to determine net industry rate profit. The profit level is obtained from data published by the Energy Information Administration and the U. S. Geological Survey. The asset value of the field is determined by first multiplying the rate of profit by the Montana price per barrel and multiplying this amount by the current production level extended until the field is depleted. This revenue stream is then discounted back at 4% to its present value. This number is the estimated asset value. A similar approach is used to determine the asset value of gas. The value for oil and gas is relatively large because of the relatively large profit margins.

A similar method is used for coal but, because of the lower profit margins for coal, the annual value of the income stream is much smaller[4]. However, the large size of the reserve extends the production period and increases the asset value. The Energy Information Administration data indicates that Montana is nearly the only state in the United States showing an increase in the price of coal in recent years. In addition, all of the national forecasts are predicting a decline in the price of coal into the foreseeable future. Environmental restrictions make it more difficult to utilize coal in the production of energy than other energy minerals. Another limit on Montana's coal reserve estimates is that Montana has large quantities of relatively low-grade coal, which increases costs in the production of energy. For these reasons, the time period used to estimate the asset value of coal reserves was limited to thirty years.

Assets for other minerals (mostly sand and gravel) were estimated by discounting the current level of production using a 7.2% average corporate bond rate.

Asset value for minerals includes some appreciation, mostly on oil and gas and aggregates. Because of the uncertainty of future coal production due to declining prices and environmental concerns, no appreciation was utilized for coal reserves.

[4] The smaller income stream to producers has little short-term impact on the revenue received by the state for its coal royalties. The lower income level has a significant impact on the asset value of the reserves.

Table D-3 Shows gross revenue distributed by land office and trust.

Table D-3 Montana Department of Natural Resources and Conservation Annual Gross Revenue From Commodity Sales by Land Office and Trust Mineral Lands FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	2	8	793	2	24	1	2	25	0	857
ELO	0	1	2,663	0	3	0	1	0	1	2,668
NELO	0	27	2,755	0	9	12	7	0	6	2,816
NWLO	1	0	8	0	1	0	0	0	0	12
SLO	0	0	3,134	0	0	0	0	0	0	3,134
SWLO	0	0	10	0	1	0	0	3	0	14
Total	2	36	9,363	2	37	14	11	29	7	9,501

Overall, the return was highest on oil and gas because of the high profit margins associated with the production of oil.

Table D-4 Montana Department of Natural Resources and Conservation Annual Net Revenue From Commodity Sales by Land Office and Trust Mineral Lands FY 2002(Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	1	5	623	1	19	1	0	10	0	661
ELO	0	1	2,579	0	1	0	0	0	1	2,581
NELO	0	18	2,563	0	3	5	2	0	6	2,597
NWLO	0	0	5	0	1	0	0	0	0	7
SLO	0	0	2,890	0	0	0	0	0	0	2,890
SWLO	0	0	7	0	0	0	0	2	0	9
Total	2	25	8,666	2	24	6	2	12	7	8,745

Discussion

Net revenue of $8,745,000 shown in Table D-4 was 3.3% of the asset value. With appreciation, the value of Mineral returns was $33,080,000, or 12.3% of assets, the highest of all resources.

Table D-5 Montana Department of Natural Resources and Conservation Annual Return to Total Assets by Land Office and Trust Mineral Lands FY 2002 (Thousands of Dollars)										
	Trust									
Land Office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	33	68	2,507	38	156	62	73	97	14	3,047
ELO	0	4	8,627	0	9	1	5	1	20	8,667
NELO	0	152	16,914	25	41	171	97	49	102	17,551
NWLO	1	0	8	0	1	0	0	0	0	11
SLO	0	7	3,774	0	0	0	0	6	2	3,789
SWLO	0	0	10	0	1	0	0	3	0	14
Total	34	231	31,841	63	208	235	176	155	137	33,080

Table D-6 Montana Department of Natural Resources and Conservation Annual Rate of Return to Total Assets by Land Office and Trust Mineral Lands FY 2002										
	Trust									
Land office	**ACB**	**ACI**	**CS**	**DB**	**PB**	**SM**	**SNS**	**SRS**	**Univ**	**Total**
CLO	11.66%	12.38%	15.97%	11.42%	12.75%	11.21%	11.37%	14.71%	11.24%	15.19%
ELO	0.00%	7.03%	8.64%	0.00%	8.47%	5.63%	13.65%	5.63%	6.24%	8.63%
NELO	0.00%	13.46%	13.19%	11.11%	13.39%	11.92%	11.81%	11.01%	11.85%	13.15%
NWLO	7.37%	0.00%	7.37%	0.00%	7.37%	0.00%	0.00%	0.00%	0.00%	7.37%
SLO	0.00%	4.89%	26.32%	0.00%	0.00%	0.00%	0.00%	4.35%	6.21%	25.86%
SWLO	0.00%	0.00%	11.68%	0.00%	7.37%	0.00%	0.00%	14.06%	0.00%	13.01%
Total	11.37%	12.25%	12.32%	11.25%	12.44%	11.63%	11.64%	12.20%	10.34%	12.30%

The comparatively large return on minerals is the result of very large returns on oil and gas. Were it not for the low return on coal and other minerals, the overall rate of return would have been much higher.

Table E–1
Montana Department of Natural Resources and Conservation
Total Acres by Bureau and Land Office and Trust

Land Office		ACB	ACI	CS	DDA	PB	SM	SNS	SRS	Univ.	Total
NWLO	Ag& Grazing	-	2,104	16,893	588	912	336	-	-	214	21,047
	Forest	11,818	3,247	192,784	8,309	37,409	9,818	8,802	1,574	155	273,916
	Minerals	12,732	4,000	261,985	9,659	40,974	12,176	10,166	1,469	524	353,685
	Special uses	137	119	1,564	50	116	963	41	-	-	2,990
SWLO	Ag& Grazing	249	1,425	85,413	-	3,109	42	44	884	669	91,835
	Forest	7,944	2,069	79,002	400	25,173	2,556	3,504	4,466	322	125,436
	Minerals	11,487	3,655	206,673	1,835	32,312	4,707	4,516	8,742	2,553	276,480
	Special uses	602	-	542	56	20	-	18	30	-	1,268
CLO	Ag& Grazing	9,022	39,403	917,912	23,218	102,032	25,246	31,827	36,563	3,857	1,189,080
	Forest	509	-	9,511	502	2,371	1,120	537	6,613	-	21,163
	Minerals	22,373	41,777	1,208,400	25,367	92,785	42,664	49,461	50,456	9,681	1,542,964
	Special uses	-	8	1,789	-	11	2	60	34	5	1,909
NELO	Ag& Grazing	15,667	-	2,051,054	4,052	14,992	20,831	18,396	12,040	9,504	2,146,536
	Forest	-	-	19	-	-	-	-	-	-	19
	Minerals	-	21,870	2,477,905	4,309	5,642	26,492	15,756	8,510	16,172	2,576,656
	Special uses	-	-	1,562	-	-	14	82	5	8	1,671
SLO	Ag& Grazing	-	3,735	398,240	-	-	-	-	3,408	504	405,887
	Forest	-	-	-	-	-	-	-	-	-	-
	Minerals	-	5,178	432,864	-	-	-	-	3,850	1,120	443,012
	Special uses	-	20	599	-	-	-	-	-	-	619
ELO	Ag& Grazing	-	42	998,154	-	1,600	239	759	148	2,815	1,003,757
	Forest	-	-	-	-	-	-	-	-	-	-
	Minerals	-	480	1,001,451	-	1,080	228	723	141	3,165	1,007,268
	Special uses	-	-	295	-	-	-	-	-	8	303
Total	Ag& Grazing	24,938	46,709	4,467,666	27,858	122,645	46,694	51,026	53,043	17,563	4,858,142
	Forest	20,271	5,316	281,316	9,211	64,953	13,494	12,843	12,653	477	420,534
	Minerals	46,592	76,960	5,589,278	41,170	172,793	86,267	80,622	73,168	33,215	6,200,065
	Special uses	739	5,305	438,616	106	147	979	201	3,919	1,141	451,153